The Workshop.

A Monthly Journal, devoted to Progress of the Useful Arts.

EDITED BY

I. SCHNORR AND OTHERS.

No. 19. NEW SERIES.

ON COLOR.

By LUDWIG PFAU.

I.

The two agents whose influence is most supremely felt in all artistic efforts, and especially in the beautiful productions of Art-Industry, are Form and Color. Form seeks its specific expression in style and has been the subject of manifold disquisitions and discussions, while the question of color, on the contrary, has hitherto been without any systematic treatment on æsthetic principles and has been left to the accident of individual tastes. Yet in a great part of Art-Industry productions, especially where the plastic element is kept in the background and surface ornament becomes the chief consideration color plays a more important part than form. It will not therefore be superfluous to endeavor, by a research after rational laws, to reduce the chaos of color to some rule and order. But for this purpose there can clearly be no better means than to inquire of nature herself, on what principle she proceeds in the distribution of her colors.

When we consider the varieties of coloring with regard to their special difference, two phenomena immediately arrest our attention, on the one hand the more or less entire colors which by their brilliancy and glow are adapted for the exhibition of all that is most magnificent, on the other hand the more or less broken tints which by the delicacy of their tone awaken the feeling of harmony. To give them their appropriate names we will call the first the primitive and the second the collective colors. It is evident that this purely æsthetical difference rests on no physical determination of boundary, but on the shifting gradations which, commencing from the original tints of blue, red and yellow, with their primitive mixtures of violet, green and orange and going on to the collective color *par excellence*, white with its grey shades, disappear at last in black. In general we understand by primitive colors, those in which the original spectral or rainbow colors are the most prominent, by collectives those in which the blending becomes visible and which may be distinguished by the addition of the termination "ish", as greenish, reddish, yellowish etc. We would say at once that in this contrast between original and mixed tones lies the whole æsthetic of colors. Both kinds have their adherents; but the great majority are more favorable to the bold and striking colors, the cultivated minority to the more modified ones, just as with the increase of civilisation the extravagant contrasts gradually disappear and give place to the neutral tints. The question is therefore, does the preference which men of cultivation show for mixed tints, proceed from a less capability of enjoyment, or from the improved education of their sense of color.

Let us see how nature proceeds with respect to the original and mixed colors. If we compare the several productions of nature with one another with respect to their colors, we at once find, that with the lower creation the primitive colors predominate while the collective become supreme in the higher. In their greatest splendour the original tints enter into notably all the phenomena of color which approach the spectrum, as also in the mineral kingdom. We need only cite the azure of the sky, the morning and evening glow, the rainbow and the aurora borealis, as well as the shimmer of crystal and jewels and the sparkle of metals. The vegetable kingdom is more modest, for while the more radiant colors enter bodily into the phenomena of the heavens, it clothes itself in the quieter green. Flowers indeed disport themselves in the gayest colors, but these

BRITISH MUSEUM

are but as single points in proportion to the great mass of vegetation. Still more quiet are the colors of the animal kingdom. The insect tribe indeed has its butterflies and its beetles, the birds their colibris and parrots, but the highly colored are the exception, and in the mammalia the primitive colors are reduced to a minimum, and are scarcely seen except in the iris of the eye and the vermilion of the mouth, for the red blood is everywhere concealed and the tint of the tawny or ruddy skin and hair is of quite a collective nature.

The progressive transformation of primitive into mixed colors is besides necessary from the nature of things. As the higher development of anything is but a richer combination of its parts these parts naturally unite their several pigments, so that an increased mixture of colors is the inevitable consequence. That therefore the collective coloring is the higher in a physiological sense can admit of no doubt, but it is so also in an æsthetical point of view, and a practised eye soon discovers that here, as well as in the question of form, that which is morally the more perfect is more physically beautiful. However the charm of primitive color is not to be despised, and no one will deny that the sapphire exceeds the coal in beauty, yet I do not imagine that we should feel ourselves much flattered if nature, in one of her capricious moods, had bestowed upon us the gift of sapphire colored hair: for everything is beautiful in its proper place, and everything ceases to be beautiful, when removed from the place which it occupies in æsthetical gradation.

A very superficial observation of nature will convince us that she is ever striving to reduce her gorgeous colors, to restrict their power, and with the higher development of life, to produce also the collective colors. Thus the primitive colors, where they enter bodily into the mineral kingdom, as in the air and the sparkling water, are sensibly modified by the transparency of the element: the solid mineral, however, when it appears in greater quantity, passes over into the grey tints, and in soil and rock may be recognised the unpretending nature of the colors with which, together with its tender green, the vegetable world is adorned. The Green too of the vegetable kingdom, where it is everywhere seen, is soft and translucent through the transparency of the leaves; and the semi-transparency of the flowers gives also to these variegated creations something tender, and etherial which perfectly reconciles us to the striking gorgeousness of the primitive colors.

But unmixed as is the pleasure which the coloring of flowers affords, its effect in the case of animals is less favorable, though here also nature does not always dispense with her gaily colored pallet. The butterfly and colibri are exceptions from their delicacy and rapidity of movement; but the chameleon-hued beetle looks as if it had a piece of chrystallised mineral on its back, and the blue and green and yellow birds appear as if they had just come from the hands of a painter. A certain contrast between the more developed creature and its primitive colorisation will strike the more sensitive eye which will prefer the broken tints in the sphere of animal life. And indeed certain grey and brown plumages, with richer shadings and greater delicacy of tint are much more beautiful than those strong colors, for among these latter, those only make any æsthetic impression the beauty of which consists in crests, bands, gorgets, clasps etc., in short in gay designs on a dull groundwork. In the mammalia the colors of high culture come into undisputed pre-eminence. The white, grey and black tints so frequently met with in birds are here mixed with the broken tones of the chief animal colors that range between orange and red. Many skins of animals possess, by this mixture an exquisite colorisation of great depth and delicate softness. Our domestic animals are especially remarkable for their picturesque advantages. But the chef d'œuvre of the art of color is seen in the human skin. As man, in his plastic perfection surpasses all other forms, so in his picturesque beauty does he surpass color. His flesh color, white and variegated together, contains the whole scale of colors but in endless mixture and is as harmonious in its general effect, as it is rich in its shadings. There is nothing which unites in so high a degree the delicacy of the broken tints with the splendour of the primitive ones as the human complexion; in it therefore we have the collective colors in their highest development.

The most certain means of leaving to any tint its natural effect is doubtless to have its surroundings colorless. The unbroken light with its clearer and darker gradations from white to grey and black is just as favorable to the human colorisation as in its primitive tints, the broken light is little flattering. It is therefore no wonder that with the cultivation of taste, the quiet colors should be preferred in articles of dress. Nothing imparts a nobler expression to the face than deep black; the neutral grey serves as an excellent foil; pure white indeed is little advantageous to a faded complexion but the latter has at least not to suffer under the much greater disadvantage of a false contrast, and it is of no injury whatever in a modest degree as, e. g., in collars, half concealed underclothing etc.

If the collective colors of the skin do not contrast unfavorably with the primitives of the clothing, we must not forget the different conditions which exist between Art and Life. Art at once places its personages on a higher stage and gives them the ideality of the moment: for it is not without reason that a picture is surrounded by a protecting frame which forms a golden frontier betwen it and common every day life. Moreover the painter has the power to depict his flesh with whatever surroundings he pleases, and by the greater surface of the naked figure can keep his tender tints in shade. And then too in his speciality as colorist, the artist treats the human figure only on that one point of view and sacrifices to it all other considerations. While he strips the body with the same indifference as the physiologist who dissects it he possesses endless devices for toning down his colors and producing perfect harmony. The living creature on the contrary who conceals within

himself ideal conceptions cannot possibly imagine himself to be the sublimest of external appearances when he walks about the perfection of colorisation. And so much the less, because art itself acts in a quite different manner when it seeks to intensify the personality. For we see the same painters, who are the most lavish with their high coloring in the pictures which their own fancy inspires, choose the most quiet tints when they wish to depict individual portraits. Titian's picture of the old patrician in black velvet, whose head comes out so charmingly from the dark back ground, is well known. The beautiful portraits of Van Dyck also are almost always clothed in black drapery, and when in female figures gayer colors are sometimes used, they are always so toned down that the face appears the great point of brilliancy. As then the art itself, notwithstanding all its expedients and resources, decides for the collective colors when it is required to dress the human figure most suitably, so we ourselves can find no better rule to follow than the example it proposes for our acceptance.

Nature makes but a most limited use of her powers of colorisation, and thus points out to us a signal which we should not overlook. Even where she is more liberal with her gay colors, they are at all events transitory. The bright glow of the morning and evening is of short duration, and above are generally to be found clouds of the most delicate grey tints which are in the fullest harmony with it. The most beautiful hues of flowers also are reserved for holiday bloom, and the higher their development, the more are the primitive colors limited to the effects of decoration. In man this is again seen in the highest perfection. Two eyes of fire and a mouth of vermilion are the three strong points for which the shinig hair and cheeks of tender red form the transition. And this great ornament imparted to the head springs lifelike from the clear pale mass of the skin color, and gives to each the desired effect of contrast.

An effect like that of flesh color can only be obtained by bringing together the thousand shades of the numberless tissues and vessels which shimmer through the skin from its deeper layers, and here we arrive at another point which is not without importance for the æsthetics of colors. The process which we see carried to its height in the human complexion is especially employed by nature in her coloring establishments. She places the tints in mosaic close to one another both in her richer and more delicate colors, though in the case of the latter, the gradations are obliterated in consequence of the closer approximation of the shades. Even in masses of one uniform color the varieties are endless. If, for example, we look at a forest, on the first view, it appears as if the whole were colored from the same pallet, but as soon as we examine the green more closely, we find that almost every leaf has a different tint. Even the leaves of the same kind of tree show individual varieties in different branches. The younger leaves are at first yellowish, and when they have become darker, the older ones begin again to turn brown and at last become yellow. Besides which the single leaves sometimes are seen from their shining, sometimes from their dull side, sometimes in light, sometimes in shade, sometimes transparent, sometimes opaque, and this rich mixture of playful tints gives to the colorisation that freshness and fullness and that delicate harmony which we admire in nature.

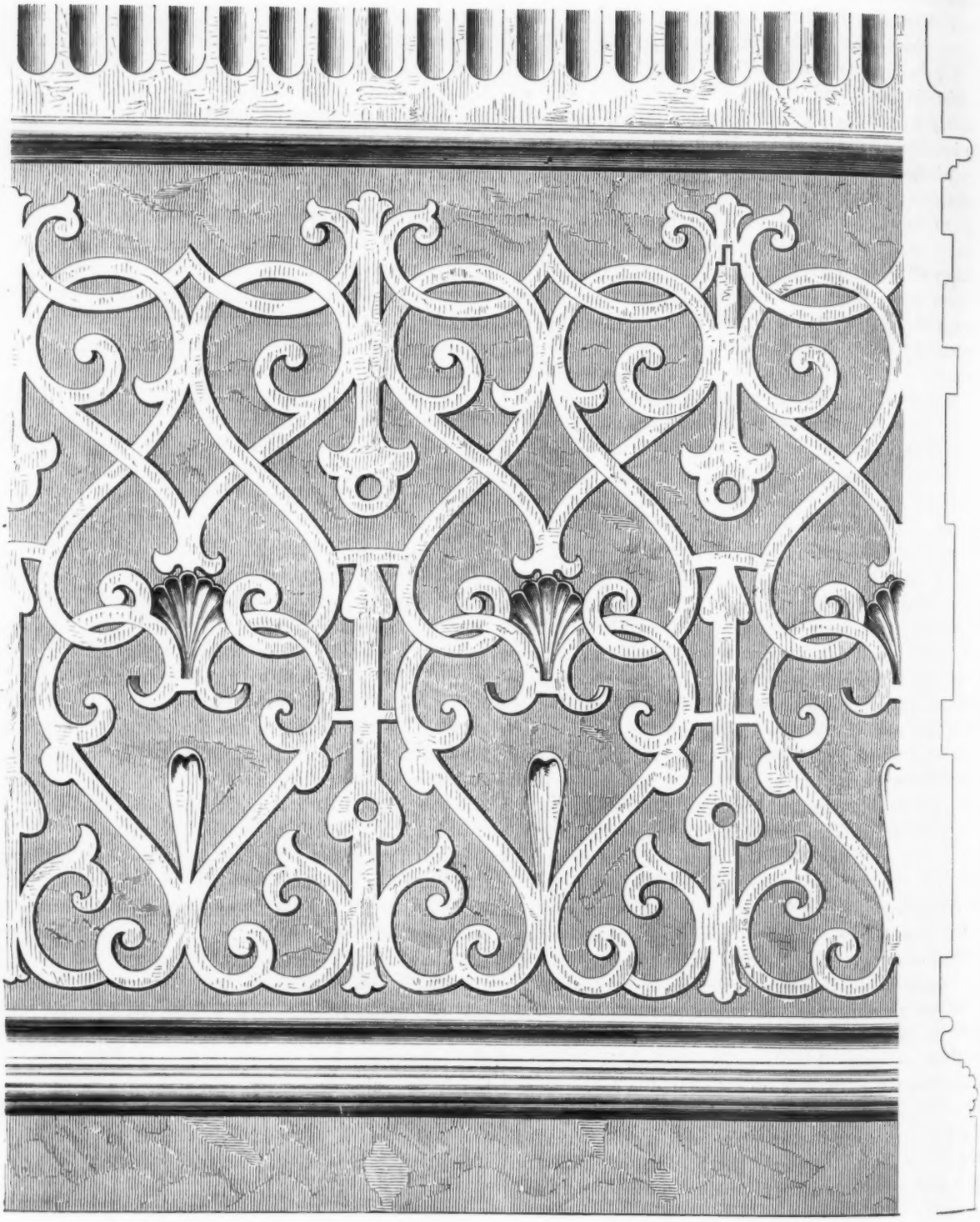
This method is capable of extensive application, for in regard to the general impression, the value of any tint depends not only on its pigment but equally on its planimetrical extent. A broad band has quite a different effect from a narrow one of the same color. If, for example, we cover a paper with blue and yellow stripes, in proportion as we make one of them broader or narrower the general effect will approach either to blue or yellow, and if we equally diminish both stripes the paper will appear entirely green.

We can also produce a change of colorisation by purely quantitative means without in any way changing the quality of the tint, and thus by whole colors we can attain a general effect, which is not without a harmonious charm in many colored objects. In a meadow in full bloom, a field of corn overspread with poppies and cornflowers, a variegated bed of flowers are to be seen such specimens of nature's painting. In the animal kingdom a well-known example is seen in the peacock. In many birds covered with the brightest feathers, in others of delicate shades, their beauty is owing to the varied melange of delicate and gay plumage, whose regularly recurring designs blend with one another and produce a most harmonious result. As to the productions of art, the oriental carpets and Indian shawls are examples of this kind to which we shall refer below.

All tints derive especially their value from the surroundings out of which they rise, and the same shades which in one place seem pale and poor, may in another be strong and brilliant: for in the latter instance, that which imparts the life, is not the pigment, but the light, and that which delights the mind is not the splendor, but the harmony. And hence, from the æsthetic standpoint, it is seen that the broken tints are the nobler. The primitive colors correspond to quantitative, to material, to palpable beauty; the collective to the qualitative, the spiritual, the ideal, and it is only by their assistance that in Art-Industry as in all else, the higher artistic aspirations can be realised.

(The conclusion in our next.)

SPECIMENS OF ORNAMENTATION.



No. 1. German. Early XVII century. Ornamental Band, incircling Shaft of Oriel Column from Mayence Castle. (1630.)

No. 2. Italian Renaissance. — Capital of Pilaster; Milan.

No. 3.

No. 4.

No. 5.

Nos. 3—5. Panels of Coffered Ceiling of Rotunda in Berlin Museum. From Schinkel's designs in the Beuth-Schinkel Museum.

No. 6.

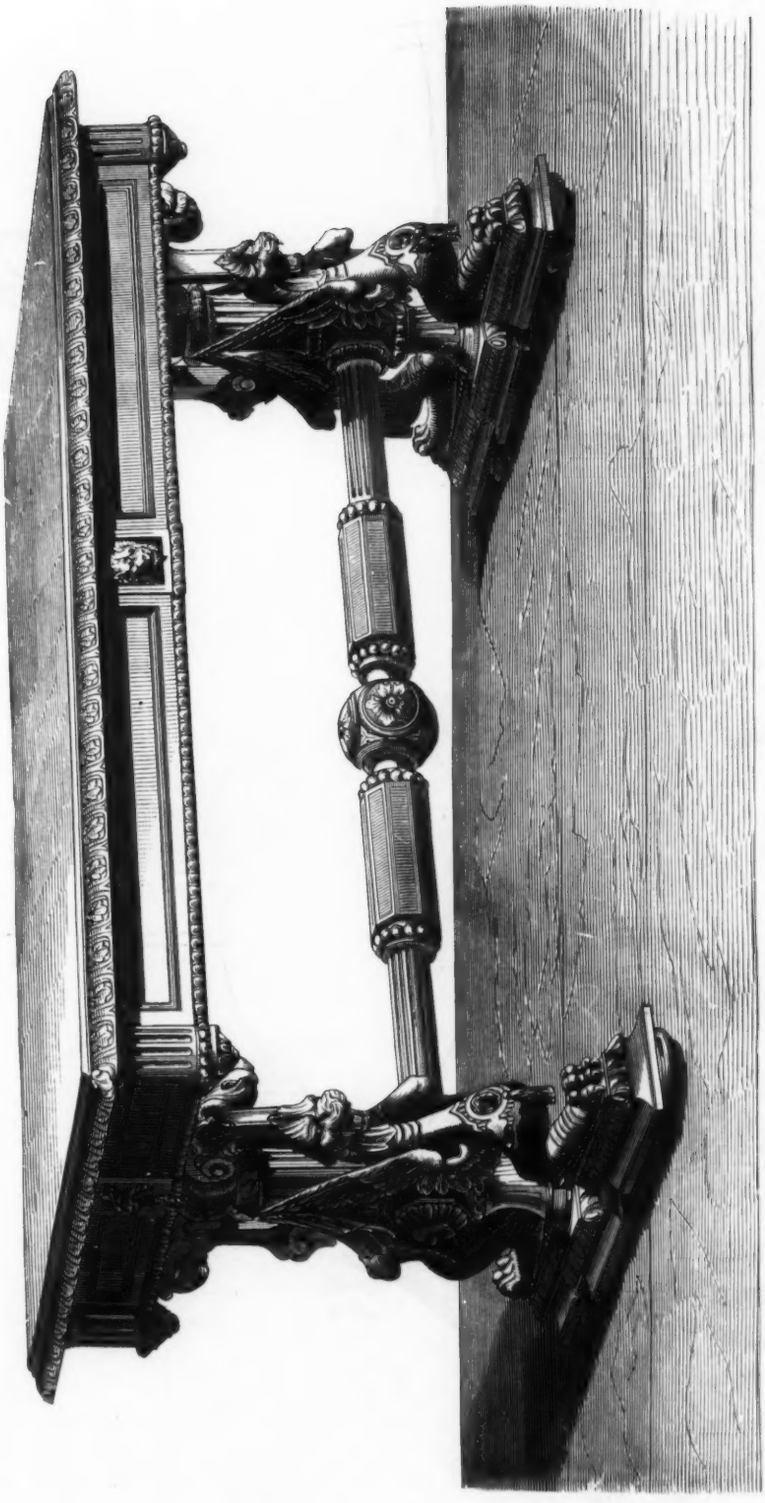
No. 7.

No. 8.

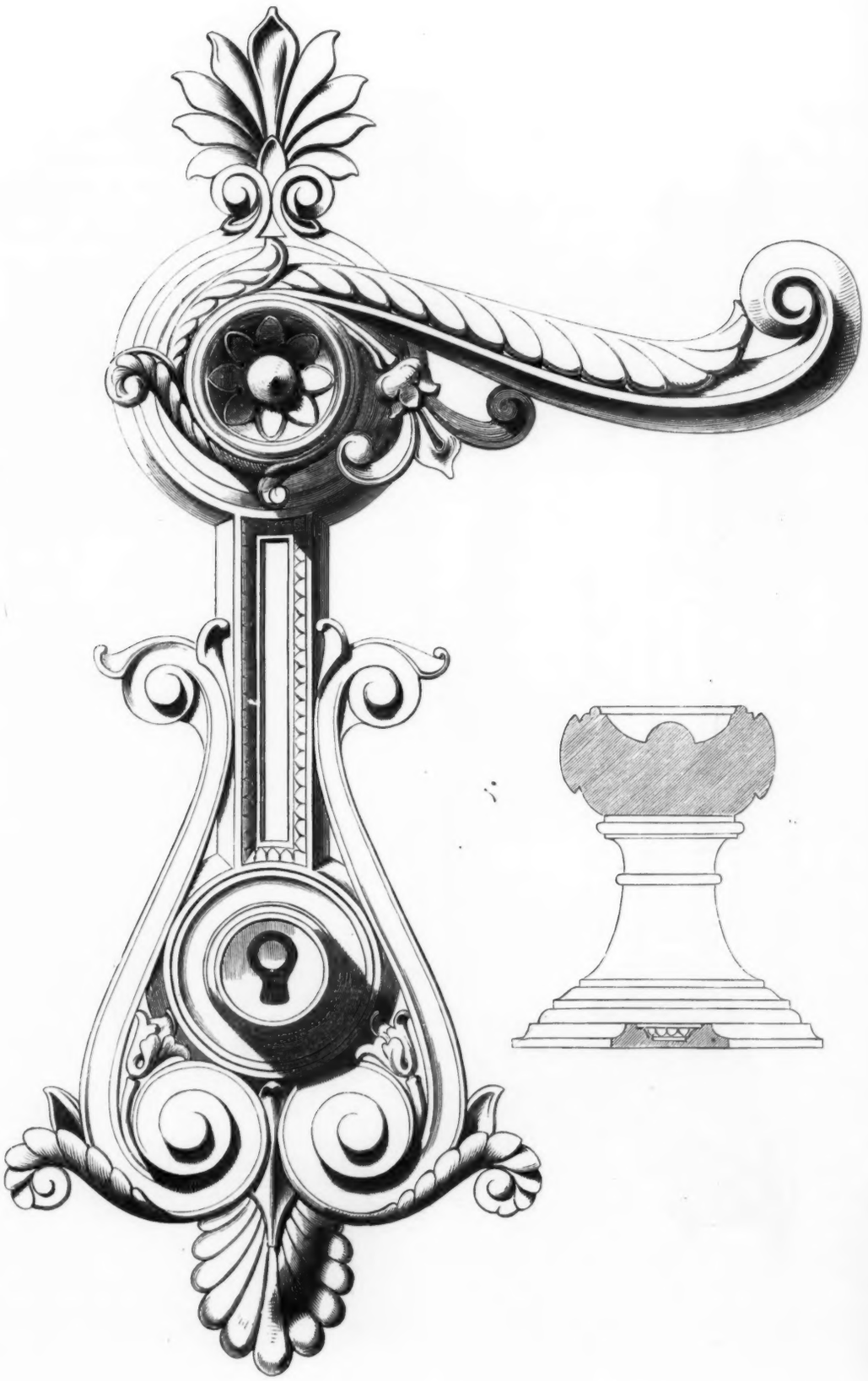
No. 9.

No. 6. Figure-Subject decorating Fountains designed by Mr. W. Genutat, Berlin.
Nos. 7—9. Ornamental Key-Stones by Mr. Chr. Lehr Berlin.

No. 10. Design of Buffet in Walnut by Mr. Jos. Schulz, Archt., Prague.
Acroterial terminations, capitals and frieze, panel ornaments and figures of upper part in carving; remaining ornament inlaid.
Details and Side Elevation see Supplement.

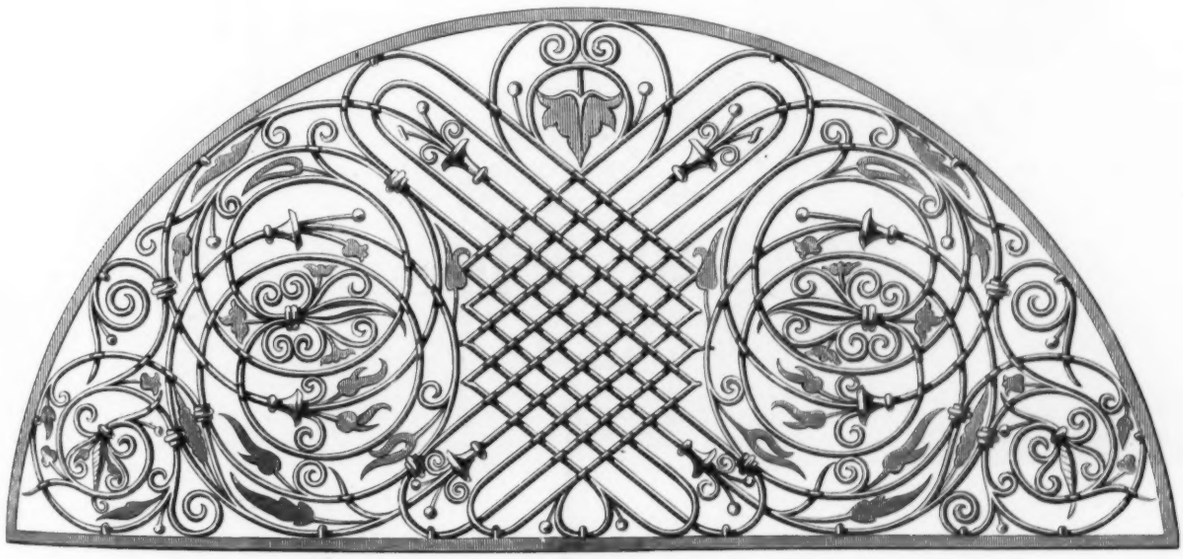


No. 11. Richly Carved Table, designed and manufactured by Mr. Fr. Schœnthaler, Vienna.



Nos. 12 and 13. Design of Door-Handle and Escutcheon in Bronze by Mr. Aug. Tœpfer, Archt., Augsburg.

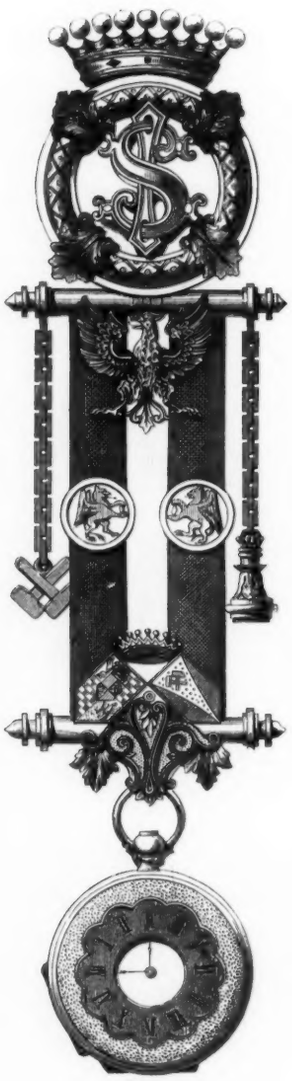
No. 14.



No. 15.

No. 14. Gaselier for 3 or 4 Lights in Bronze and Glass, designed for a Vestibule by Mr. V. Teirich, Vienna.
No. 15. Wrought-Iron Door Head from Nuremberg Town-Hall.

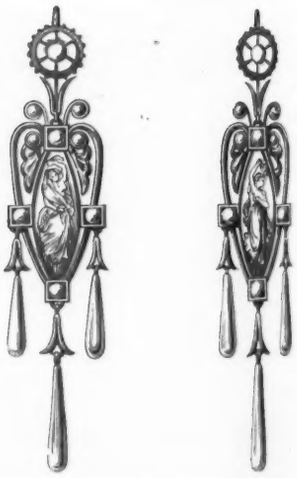
No. 17.



No. 16.

No. 18.

No. 20.



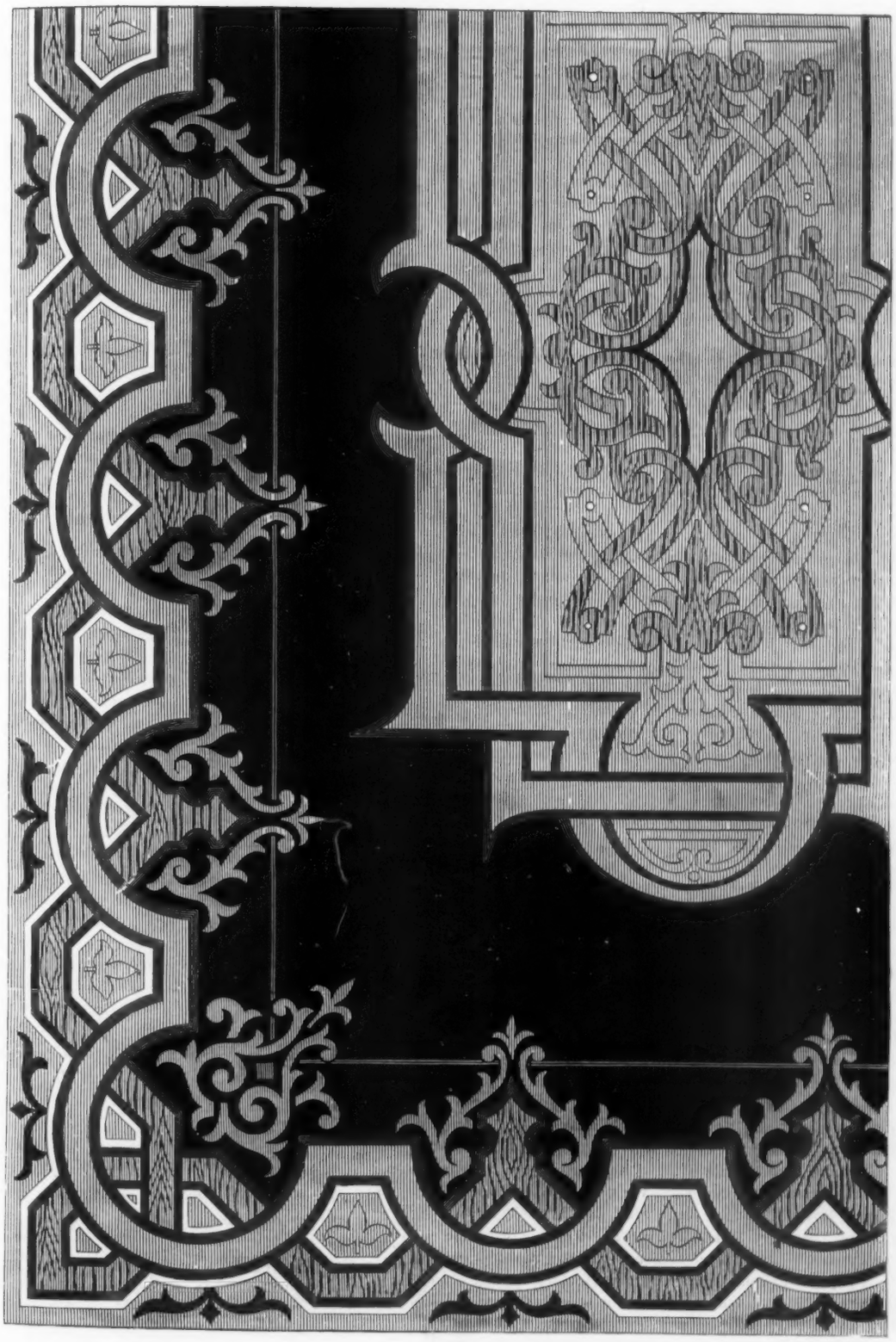
No. 21.

No. 19.

No. 16. Chatelaine in Gold, with Arms and Emblems, manufactured by Mssrs. Sommé, Breslau, from the design of Mr. F. Barchewitz.
Nos. 17—21. Brooches, Necklace, Locket and Ear-Pendants, designed and manufactured by Mr. H. Schaper, Berlin.

No. 22. Drinking-Horn in Silver, Gold and Enamel manufactured by Messrs. Brix and Anders, Vienna, from the design of Mr. A. Rincklake, Archt.

Nos. 23—25. Italian. — XVI century. Bronze Firedogs from South Kensington Museum, London.



No. 26. Lid of inlaid Box. Veneering by pressing after a new method. Mr. Theod. Wendler, Berlin.

VARIOUS.

The Vendome Column.

The beautiful column of the Place Vendome is destroyed, and by this unwarrantable and shameful act, history and the world of Art are robbed of a remarkable monument which memorialized the glory of the Grand army, and the triumph of French Art. The *Times* contains an interesting account of the column of which we take the following notice.

On the site of the column once stood an equestrian statue of Louis XIV. This was overturned and broken by the *sans-culottes*, and the spot remained vacant till 1806, when Napoleon determined to consecrate it to the eternal memory of the campaign of the previous year, whose glories culminated at Austerlitz. On the 18th of August the first stone was laid; the work was finished in exactly four years. Messrs. Lepère and Soudoin were the architects. The bas-reliefs, the principal beauty of the column, were cast by Launay. The foundations are the same which served for the statue of Louis XIV. They are 30 feet deep, and are built on piles. The column is, or was, of the Doric order, and was of stone, coated with 425 bronze plaques, moulded in bas-reliefs, and winding round the shaft from the pedestal to the lantern. These formed a complete history of the compaign of 1805. The bronze weighed 1,800,000 pounds, and was the metal of 1,200 cannon captured at Ulm and Vienna.

The total height of the column was 132 ft. 3 in., and it was ascended by a spiral staircase of 176 steps. The pedestal was also covered on three sides with bas-reliefs representing arms, uniforms, flags, and other military gear taken from the Austrians. At the time these were cast Napoleon was meditating an alliance with Russia, and, though this Power had leagued and been defeated with Austria in the Austerlitz Campaign, the Emperor gave orders to erase from the designs for the bas-relief everything which related to the double triumph, and to make them appear as though his victories had been over Austria alone. Launay who had the direction of the castings, did not at all like this subtraction from the glories they were intended to perpetuate, but he saved his pride by moulding the reverse of some of the bas-reliefs from the drawings as they were before the Emperor gave his political order. Now that the Column has been thrown down, these hidden trophies may come to light. The inscription was by Visconti and ran as follows:

"Neapolio. Imp. Aug.
"Monumentum. Belli. Germanici.
"Anno. MDCCCV.
"Trimestri. Spatio. Ductu. Suo. Profligati.
"Ex. Ære. Capto.
"Gloriæ. Exercitus. Maximi. Dicavit."

The bas-reliefs were three feet eight inches high, and circled the column 22 times, making a spiral 840 feet long. They were a series of tableaux, 76 in number, having for their subjects the principal incidents of the Austerlitz campaign. These were selected by the Emperor himself, and the inscriptions which accompanied them, and were engraved on a cordon under the bas-relief, were written by "le savant Denon" and the prince of Wagram.

The bas-reliefs begin with the breaking up of the Camp de Boulogne. Then we have the departure of the various corps from Boulogne, Brest, Utrecht, and Hanover. We see the troops on the march, crossing rivers, entering towns etc., and in their various arms of artillery, cavalry, and infantry. The tableaux continue representing the scenes which lead to General Mack's capitulation, glorified by a superb and ingenuous allegory, Victory writing on a shield the words "Capitulation d'Ulm." This is or was succeeded by the entry into Munich and, after a few more scenes, by that of Vienna, and the surrender of the keys of that capital. High up the column began the series of bas-reliefs in which its climbing glories, the battle of Austerlitz, the interview with the Emperor of Austria, the negociations for the treaty and the triumphal return to Paris, culminated. Last of all hundred-voiced Fame proclaims the high deeds of the compaign of 1805 while Seine, reclining on his flood, listens to the story of so many glorious battles.

Napoleon's first intention was that the statue upon the l of the column should be, not his own but Charlemagne's. Jena, Eylau, and Friedland, however, he changed his mi allowed his flatterers to change it for him, and a statue of by Chaudet was placed upon the column. This gave way, i to another by Seurre, in which the great Emperor was repre standing on a heap of cannon-balls, dressed in his "cost *bataille*". The hat, the epaulettes, the boots, and the sword at Austerlitz were copied exactly. The present figure suc M. Seurre's and is one of Napoleon III.'s tributes to the m of his uncle.

To Take Plaster Casts of Natural Object

By this process, as explained by Mr. Boyd Dawkins *"Builder"* any one can make by himself casts in plaster of of the most delicate objects of natural history. The mat the mould is artists modelling wax; as it becomes soft and by the application of heat, though in a cold state it is perfectly it takes the most minute markings and striations of the origi which it may be applied without injuring it, and the microscopic ture of the surface of the original is carefully reproduced in th This method is briefly this: — 1. Cover the object to be cast thin powder of steatite or French chalk, which prevents the ad of the wax. 2. After the wax has become soft, either immersion in warm water, or from exposure to the direct h the fire, apply it to the original, being careful to press it in little cavities. Then carefully cut off the edges of the w round, if the undercutting of the object necessitates the being in two or more pieces, and let the wax cool with the in it, until it is sufficiently hard to bear the repetition operation on the uncovered portion of the object. The s prevents the one piece of the mould sticking to the other. original ought to be taken out of the mould before the latt comes perfectly cold and rigid, as in that case it is very di to extract. 3. Then pour in plaster of Paris, after having w the moulds to prevent bubbles of air lurking in the small stices; and if the mould be in two pieces, it is generally conv to fill them with plaster separately before putting them to 4. Then dry the plaster casts either wholly or partially. 5. the casts in water colours, which must be fainter than the the original, because the next process adds to their intensity. delicate shades of colour in the original will be marked i cast by the different quantity of the same colour, which is up by the different textures of the cast. 6. After drying the steep it in hard paraffine. The ordinary paraffine candles, can be obtained from any grocer, will serve the purpose. 7. and polish the cast by hand with steatite. The result of this p is said to be far better than that obtained by any other.

Wood Carpeting.

The *Scientific American* describes the new wood carp which is coming into extensive use in America as follows: — fabric is made of slats or more ornamental shapes, glued or cem upon a cloth backing. The slats or strips of wood are of dif colors, and are arranged to produce all the effects of tess floors, mosaic-work, etc., and, being about a quarter of an in thickness, they will wear many years. They are finished i and fit together so tightly that the joints are as perfect as in inlaid work. The surface thus produced can therefo scrubbed, washed, and oiled, when needed, precisely like other made of ornamental wood which floors they resemble in all re when laid.

BRITISH MUSEUM 9 OCT 71

e upon the lantern
clemagne's. Although
aged his mind, or
a statue of himself
gave way, in 1844,
r was represented
n his "costume de
nd the sword worn
t figure succeeded
tes to the memory

al Objects.

rd Dawkins in the
in plaster of Paris
y. The material of
nes soft and plastic
it is perfectly rigid,
as of the original to
he microscopic struc-
roduced in the cast.
ect to be cast with a
revents the adhesion
soft, either from
o the direct heat of
to press it into the
dges of the wax of
cessitates the mould
cool with the object
he repetition of the
bject. The stearine
to the other. The
before the latter be-
e it is very difficult
after having wetted
in the small interior
generally convenient
tting them together
r partially. S. Price
inter than those of
their intensity. The
ill be marked in the
lour, which is taken
After drying the cast
affine candles, which
he purpose. T. Cook
result of this process
y any other.

new wood carpeting
a as follows: — The
pes, glued or cemented
wood are of different
effects of tenacious
a quarter of an inch
ey are finished in oil,
re as perfect as those
ed can therefore be
cisely like other floors
esemble in all respects

FIG. 1 PART 1

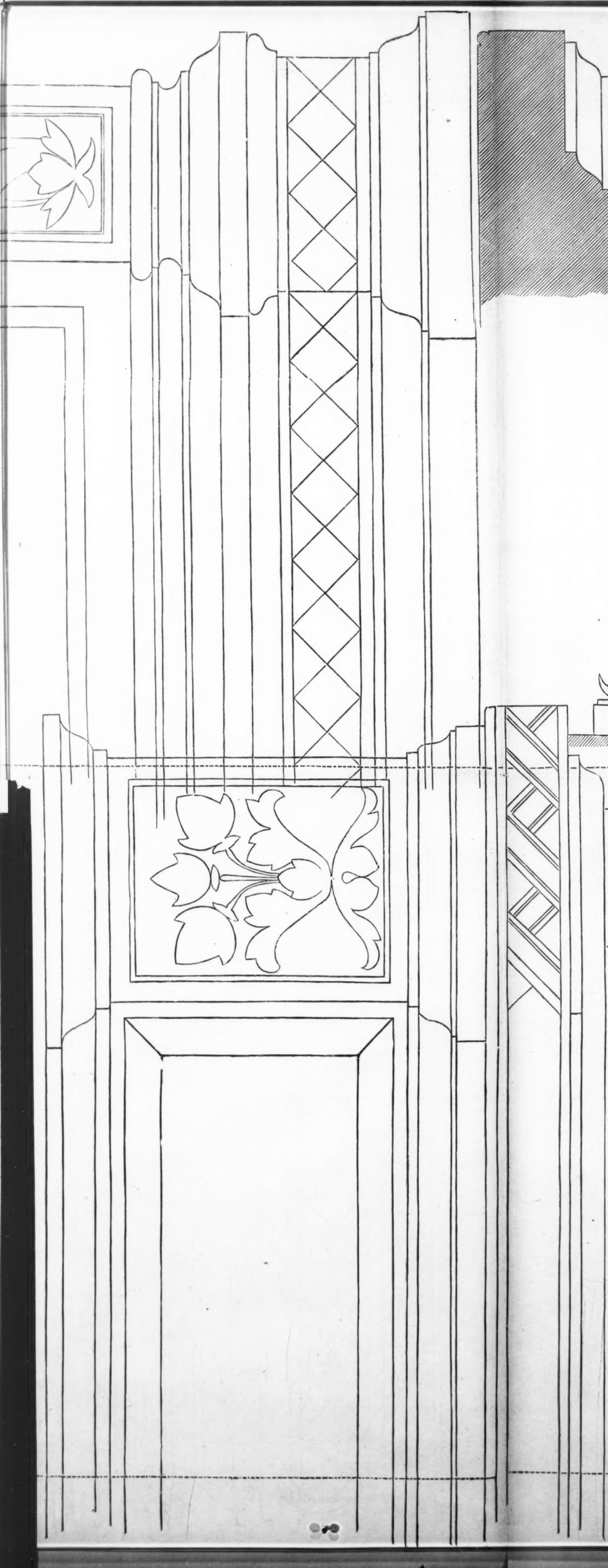
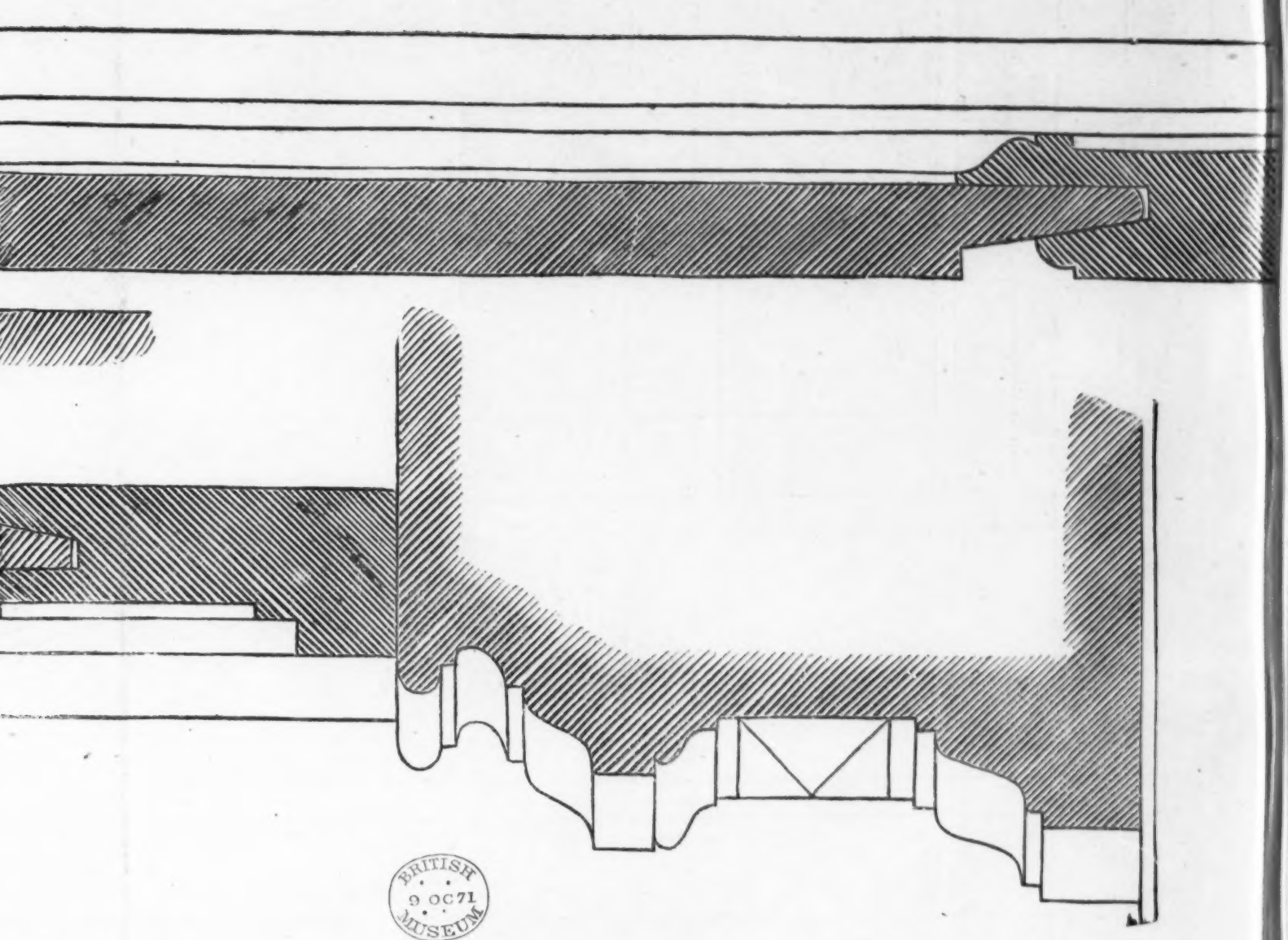


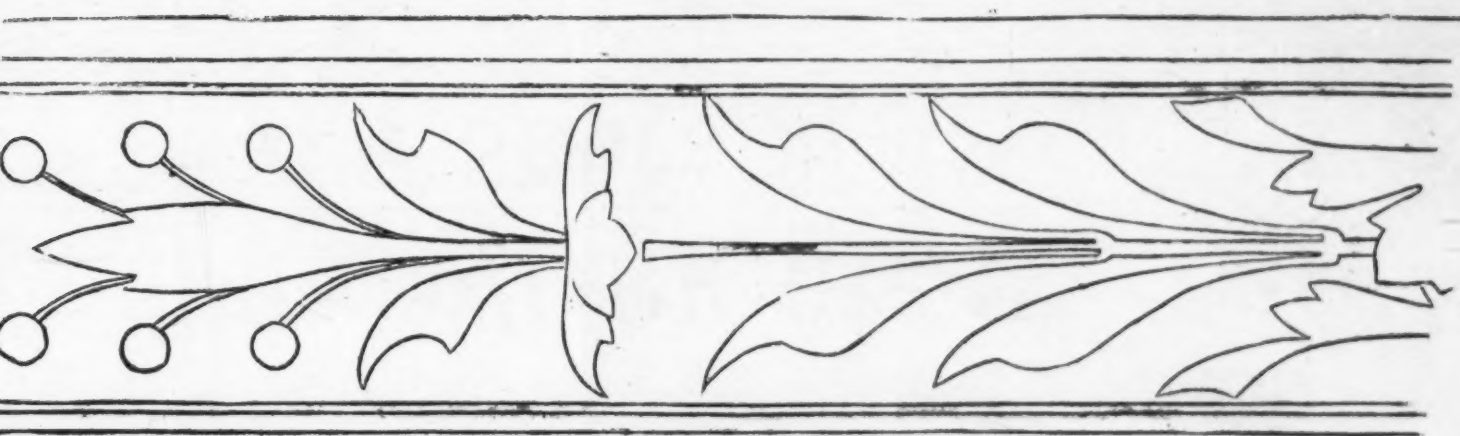
FIG. 1 PART 2



BRITISH
9 OC 71
MUSEUM

THE WORKSHOP

NEW SERIES No 19.



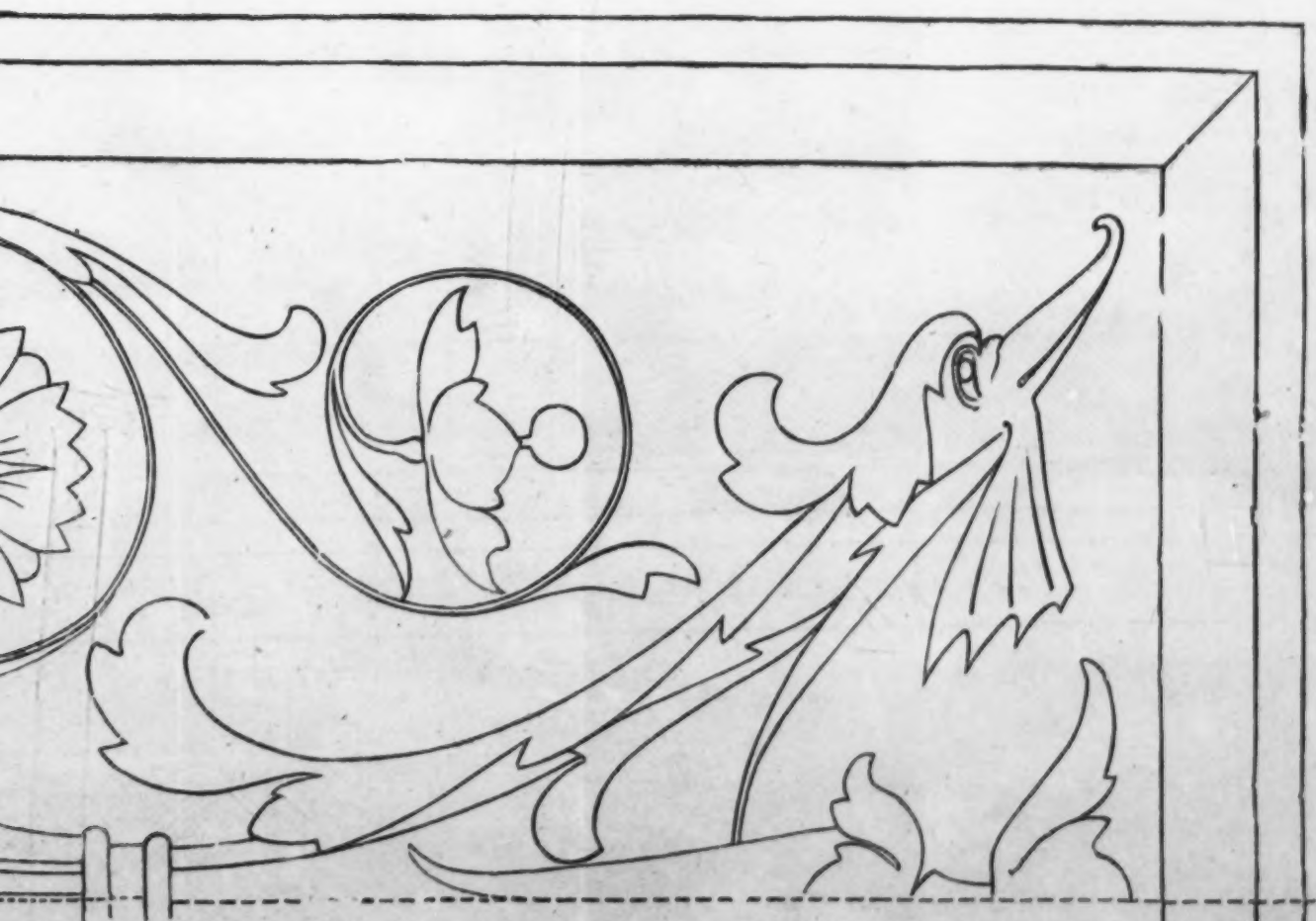


FIG. 2 PART 1

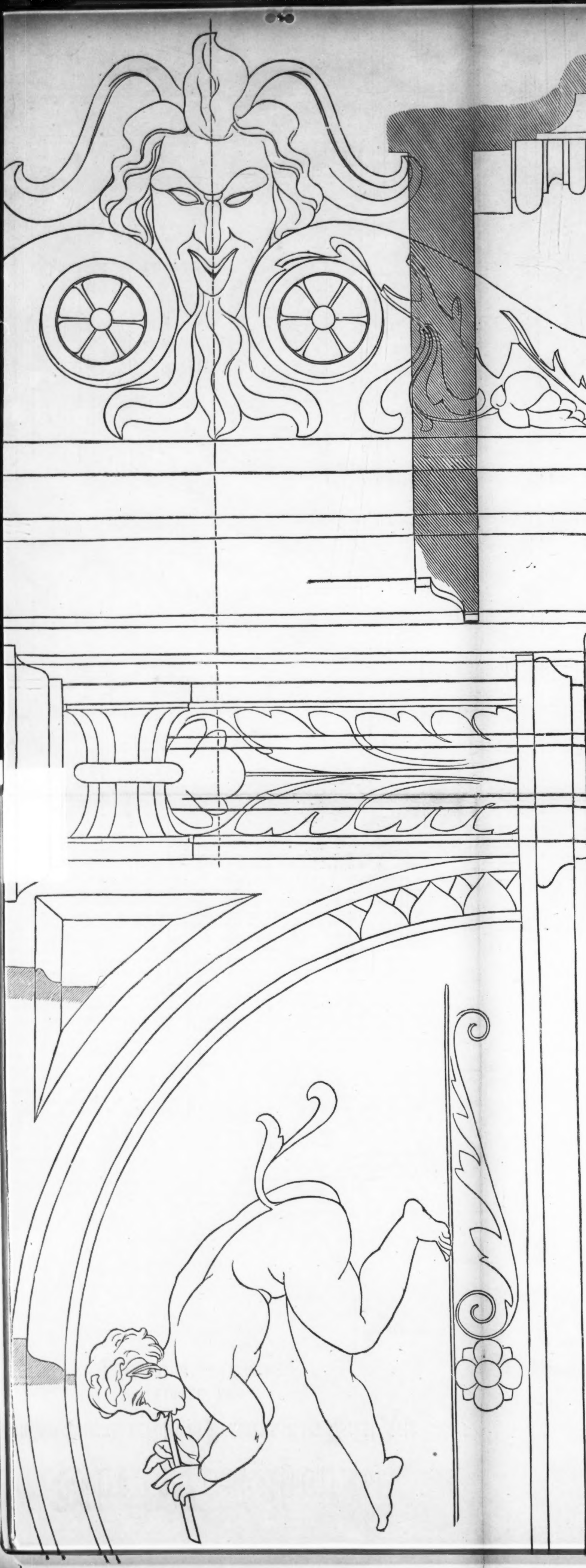
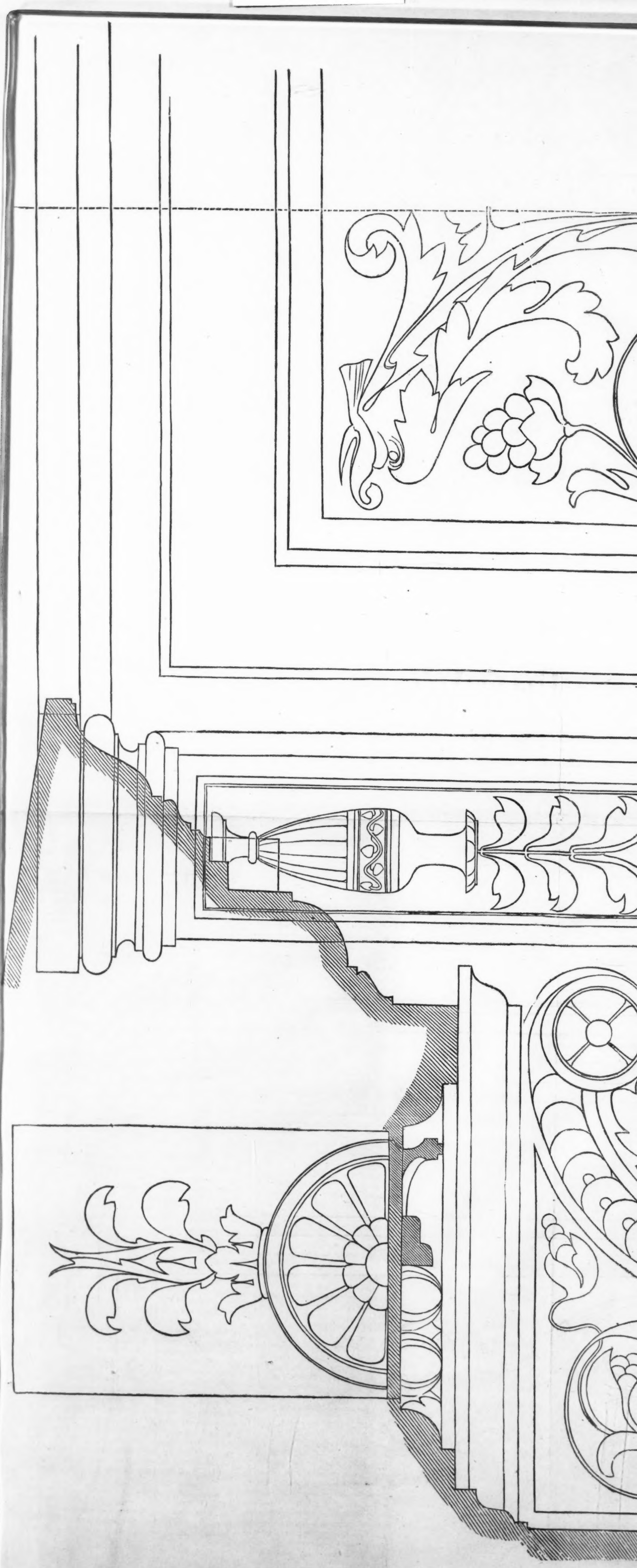
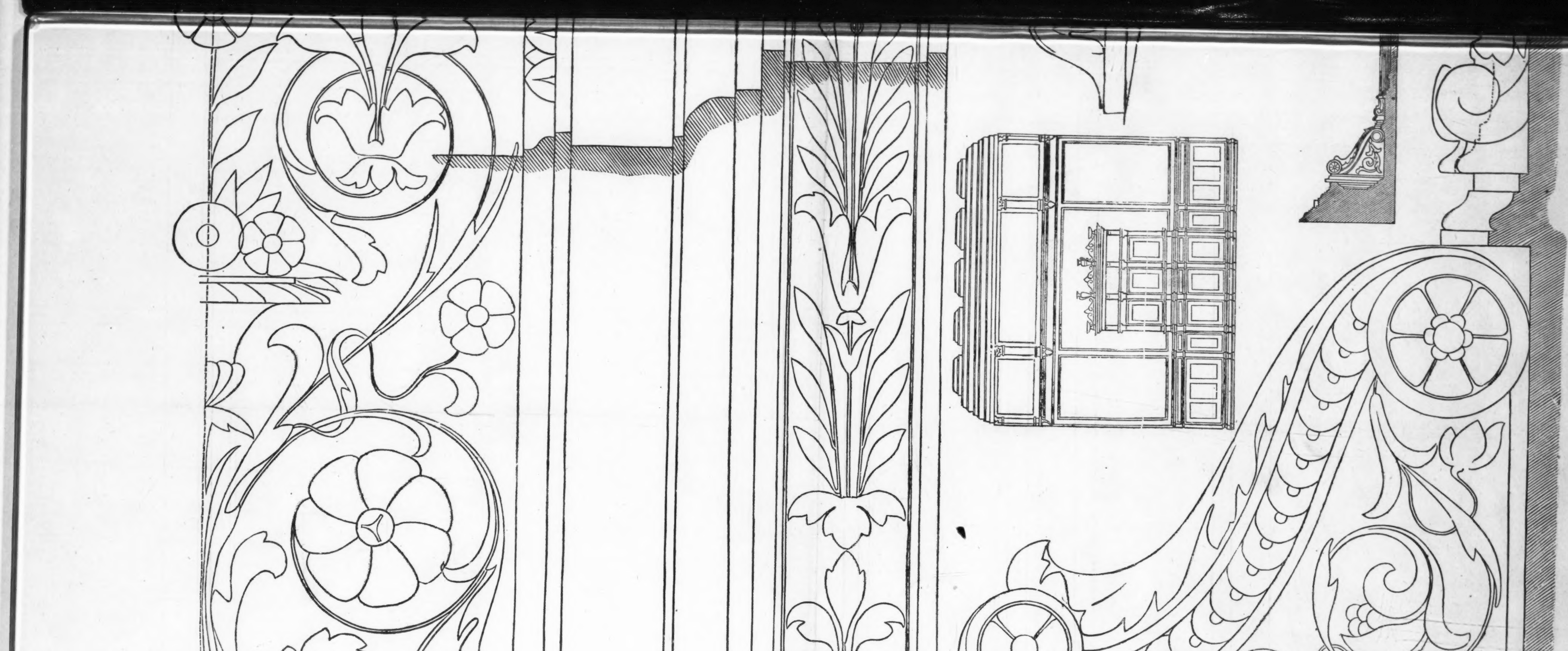



FIG. 2 PART 2